

Japanese Experiment Module (JEM)/Kibo (Hope)

Japan Aerospace Exploration Agency (JAXA)/ Mitsubishi Heavy Industries, Ltd.

The Japanese Experiment Module is the first crewed space facility ever developed by Japan. The Pressurized Module (PM) is used mainly for microgravity experiments. The Exposed Facility (EF) is located outside the pressurized environment of the ISS. Numerous experiments that require direct exposure can be mounted with the help of the JEM remote manipulator and airlock. Logistics components will be launched in

the Experiment Logistics Module Pressurized Section (ELM-PS). Experiments may be mounted on the JEM-EF using the Experiment Logistics Module Exposed Section (ELM-ES).

All of the JEM modules will be launched on the Space Shuttle.

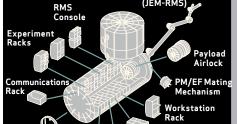
Periments may be
EF using the
Module
I-ES).
Experiment Logistics
Module Pressurized
Section (ELM-PS)

Japanese Experiment Module Remote
Manipulator System (JEM-RMS)

JEM Pressurized Module

JEM Remote

Majordate System



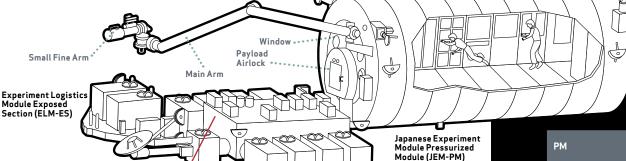
Stowage Rack

Berthed to

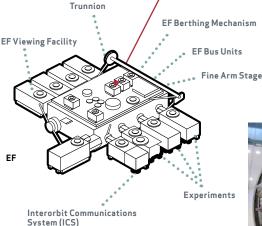
Power System Rack

Environmental Control and Life-Support/Thermal Control System Rack

Common Berthing Mechanism



Exposed Facility (EF)





JEM-PM during testing.

	РМ	ELM-PS
Diameter	4.4 m (14.4 ft)	4.4 m (14.4 ft)
Length	11.2 m (36.7 ft)	3.9 m (12 ft)
Mass	15,900 kg (35,050 lb)	4,200 kg (9,260 lb)
	EF	ELM-ES
Dimensions	5.6 x 5 x 4 m (18.4 x 16.4 x 13.1 ft)	4.9 x 4.2 x 2.2 m (16.1 x 13.8 x 7.2 ft)
Mass	4,000 kg (8,820 lb)	1,200 kg (2,650 lb)
Racks	10	3

Main Arm length 9.9 m (32.5 ft)

1.9 m (6.2 ft)

JEM Remote Manipulator System

Small Fine Arm length